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Group Art Unit 3628			
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FROM: Joseph G. Swan   **DIRECT DIAL:** (310) 312-3188   **CLIENT/MATTER:** 35512-00056
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PAGES: 27 (including Cover Sheet)   **RE:** 09/692,748

Re:

In re Application of: M. Chapman Findlay, et al.

Application No.:   09/692,748

Filed: October 19, 200

For: Asset Pricing Forecasting

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Atty. Docket No. 35512-56

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

M. CHAPMAN FINDLAY III, ET AL.

Application No.: 09/692,748

Filed: October 19, 2000

For: ASSET PRICE FORECASTING

Group Art Unit: 3628

Examiner: Nguyen, Nga B.

Conf. No.: 7074

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION - 37 C.F.R. § 1.192)

Mail Stop Appeal Briefs - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Notice of Defective Appeal Brief dated September 23, 2005,

transmitted herewith is the corrected Appeal Brief in the above-referenced patent

application, with respect to the Notice of Appeal filed on May 3, 2005. As requested in

the Notice, an Evidence Appendix and Related Proceedings Appendix have been added

Serial No. 10/759,585

to the Brief. In addition, in order to comply with certain other current requirements, the heading "Summary of the Invention" has been replaced with the heading "Summary of Claimed Subject Matter", and the final paragraph of that section has been changed to specifically refer to the means-plus-function claim.

This Appeal Brief is being submitted on behalf of Assignee, c4cast.com, Inc., a corporation operating as a small entity.

It is not believed that there are any fees due in connection with the filing of this paper that have not been accounted for in this paper or the previously-filed papers. In the event that additional fees are due, please charge the fees to our Deposit Account No. 13-3735. If an extension of time under 37 C.F.R. 1.136 is required for the filing of this paper and is not accounted for in this paper or the accompanying papers, such an extension is requested and the fee (or any underpayment thereof) should also be charged to our Deposit Account. A duplicate copy of this page is enclosed for that purpose.

Dated: October 19, 2005

Respectfully submitted,
MITCHELL, SILBERBERG & KNUPP LLP

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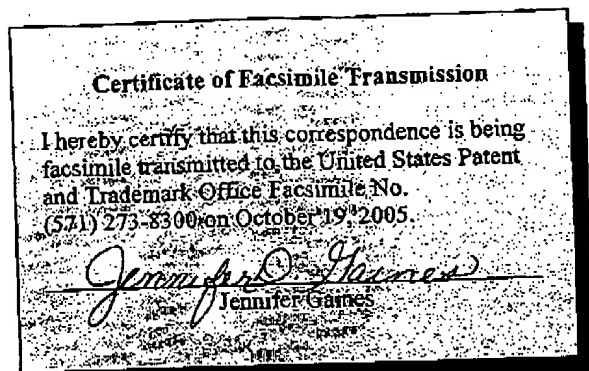
PATENT
Atty. Docket No. 35512-56

In The United States Patent And Trademark Office

In re Application of:

M. Chapman Findlay III, et al.

Application No.: 09/692,748

Filed: October 19, 2000

For: Asset Price Forecasting

Group Art Unit: 3628

Examiner: Nguyen, Nga B.

Conf. No.: 7074

Corrected Appeal Brief
On Appeal to the Board of Patent Appeals and Interferences

Mail Stop Appeal Brief - Patent
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Appellants in the above-captioned patent application appeal the final rejection of claims 1-35 set forth in the Office Action mailed December 1, 2004, a Petition for One-Month Extension of Time having been filed on March 15, 2005, and a Notice of Appeal and Petition for Additional One-Month Extension of Time having been timely filed on April 27, 2005.

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Serial No.: 09/692,748

I. REAL PARTY IN INTEREST

The real party in interest in this application is c4cast.com, Inc., pursuant to an assignment recorded on October 19, 2000, at reel 011266, frame 0212.

II. RELATED APPEALS, INTERFERENCES AND PROCEEDINGS

On May 13, 2005, an Appeal Brief was filed in Application Serial No. 09/615,021 (the '021 application), which case is related to and shares a similar specification with Application Serial No. 09/615,025, now U.S. Patent 6,907,403 (the '403 patent). The present application is a continuation-in-part of the '403 patent. The appeal in the the '021 application remains pending.

On July 28, 2004, an Appeal Brief was filed in Application Serial No. 09/615,026 (the '026 application), which also is related to and shares a similar specification with the '403 patent. However, prosecution was reopened in the '026 application before the Board could consider the appeal.

III. STATUS OF CLAIMS

Claims 1-35 have been finally rejected and are the subject matter of this appeal. In accordance with 37 C.F.R. § 1.192(c)(9), a copy of the claims involved in this appeal is included in Appendix A attached hereto.

IV. STATUS OF THE AMENDMENTS

No amendment has been filed subsequent to the final rejection. A Response to Final Rejection, which presented arguments but did not request any amendment, was

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filed on March 15, 2005. The subsequent Advisory Action that was mailed on April 6, 2005, stated that the Response did not place the application in condition for allowance.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention concerns improved techniques for forecasting the direction in which the price of an asset (e.g., a share of stock) will move. The following is a general description of the invention, according to the independent claims on appeal (i.e., claims 1, 31 and 32). Initially, a set of exogenous variables (e.g., interest rate, unemployment rate, commodity price) that are likely to influence observed prices of an asset are identified (e.g., using stepwise regression or a statistical clustering technique). Next, a prediction formula is generated (e.g., using a statistical regression technique or a neural network technique) based on historical values for the exogenous variables and the asset value. That formula is then calculated using an input set of observed values for the exogenous variables at a given point in time, so as to obtain a price estimate for the asset at that given point in time. Finally, a determination is made as to how similar or dissimilar the actual asset value is to the predicted value (e.g., using a difference ratio), and a direction in which the asset price will move is forecast based on the similarity measure. See, e.g., page 4 line 17 through page 13 line 25 and Figure 1 of the Specification.

By appropriately selecting the exogenous variables in the technique of the present invention, desired components of historically observed asset price movements often can be separated out and used for price forecasting. See, e.g., page 4 lines 3-5 of the Specification. For example, by selecting exogenous variables that reflect only non-asset-specific, but otherwise fairly comprehensive, market information, the similarity

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measure generally can be constructed so as to provide a good indication of how the market has responded to changes in asset-specific information (e.g., news of a new product release). Based on this information, an investor may be able to determine whether the market has responded appropriately and, correspondingly, whether the asset appears to be over-valued or under-valued. See, e.g., page 4 lines 5-16 of the Specification.

The means-plus-function of claim 31 correspond to a computer-readable medium, a general-purpose computer or other computing device, or any combination of software, firmware and/or hardware, as described, e.g., from page 31 line 19 through page 34 line 3 of the Specification.

VI. GROUNDS OF REJECTION

Claims 1-19 and 21-35 stand rejected under 35 USC § 102(e) over U.S. Patent 6,681,211 (Gatto); and claim 20 stands rejected under § 103(a) over Gatto.

VII. ARGUMENT

Authority Pertaining to Issues on Appeal

Anticipation Rejections Under 35 USC § 102

The requirements for showing anticipation under § 102 are described in M.P.E.P. § 2131 as follows:

> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

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With respect to a § 102 rejection, the Federal Circuit also has held that "The identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920, (Fed. Cir. 1989).

In addition, when inherency is asserted extrinsic evidence must cited to show that the missing descriptive matter is necessarily present in the thing described in the reference:

> To establish inherency, the *extrinsic evidence* [emphasis added] "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Id.* at 1269, 20 U.S.P.Q.2d at 1749 (quoting In re Oelrich, 666 F.2d 578, 581, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981)).

In re Robertson, (Fed. Cir. 1999) 169 F.3d 743, 745; 49 U.S.P.Q.2d 1949.

Rejection Under 35 USC § 102(e) Over U.S. Patent 6,681,211 (Gatto)

Claims 1, 31 and 32

Independent claims 1, 31 and 32 are directed to techniques for forecasting the direction in which the price of an asset will move. Initially, a group of exogenous variables that are likely to influence observed prices of the asset is identified. Historical data for values of such exogenous variables and historical data for the observed prices of the asset over a period of time are processed to obtain a formula for calculating price estimates for the asset as a function of the exogenous variables.

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That formula is then calculated using an input set of observed values for the exogenous variables at a given point in time, so as to obtain a price estimate for the asset at such given point in time. Next, a similarity measure is determined by comparing the price estimate for the asset at the given point in time to the observed price for the asset at the same given point in time. Finally, a direction in which the observed price of the asset will move is forecast based on the determined similarity measure.

The foregoing combination of features is not disclosed by the applied art. In fact, Gatto does not disclose many of the features or limitations recited in the present claims. This is because Gatto is directed to an entirely different problem than is addressed by the present invention. See, e.g., page 2 of the Office Action dated December 1, 2004, finally rejecting the pending claims (the "Final Rejection"), in which even the Examiner acknowledges that Gatto uses an entirely different approach than that of the present invention.

As noted above, the present invention provides an indication as to whether a given asset price will move up or down. Generally speaking, this is accomplished by comparing an actually observed asset price to what would have been predicted based on a group of exogenous variables that are likely to influence the observed price of the asset.

Gatto, on the other hand, provides a computer-implemented tool that assists a user in evaluating the performances of security analysts and in determining an optimal combination of the analysts' estimates. See, e.g., Gatto's Abstract and column 8 lines 52-54 of Gatto's disclosure. The apparent goal of Gatto's tool is to help a user: (i)

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identify how certain factors pertaining to an estimate or to the analyst who made the estimate affect the accuracy of the estimate; and then (ii) manually assign corrections and weights based on that information, in order to produce a prediction model. The resulting model can then be used to combine future estimates to produce a composite (again, hopefully optimal) forecast.

In other words, Gatto is concerned with facilitating an improved combined forecast of the future value of some parameter related to an identified security. By comparison, as will become clear in the discussion below, the present invention primarily is concerned with how the market is pricing an asset and, in particular, focuses on the component of the asset's market price that results after separating out the influences caused by factors that are reflected by certain selected exogenous variables. These general differences between the present invention and Gatto manifest themselves, for example, in the following specific distinctions.

First, the present claims recite the use of "a group of exogenous variables that are likely to influence observed prices of an asset." See, e.g., page 4 lines 19-20 of the Specification. Examples include macroeconomic variables, such as interest rate, unemployment rate, housing starts or currency exchange rate. See, e.g., page 5 lines 5-8 of the Specification and the '403 patent. Accordingly, contrary to the Examiner's assertion, such exogenous variables are significantly different than the analyst/estimate factors used by Gatto.

As described in Gatto, e.g., at column 19 lines 24-29, Gatto's factors include: accuracy, all-star rating, broker list, experience, estimate age, and other factors, attributes or performance metrics. Thus, rather than themselves actually "influencing

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observed prices of any assets", as presently recited, Gatto's factors only appear to relate to certain characteristics of estimates (i.e., their ages) or the analysts who have made them (i.e., previous accuracy, experience, recognition in the industry).

Second, even if one were to attempt to read the presently recited term "exogenous variables" on Gatto's factors identified above, as is asserted by the Examiner, many of the limitations of the present claims still would be missing from Gatto.

For example, contrary to a reading of the present claims, historical values for Gatto's factors are not processed in order to obtain a formula for calculating price estimates for an asset as a function of such factors. Rather, as explained in column 19 of Gatto, Gatto's factors, as well as the N-scores and weights assigned to such factors, are simply selected by the user, in the user's own discretion, in order to create a model that will be used to produce a (hopefully optimal) combination of the analysts' forecasts.

The Examiner apparently acknowledges that Gatto's model is created in an entirely different way than the formula of the present invention. See, e.g., page 3 of the Final Rejection. Nevertheless, the Examiner has cited column 23 lines 1-35 and column 11 lines 10-52 of Gatto as disclosing the above-referenced feature of processing historical values for Gatto's factors in order to obtain a formula for calculating price estimates for an asset as a function of such factors.

However, column 23 lines 1-35 of Gatto only discusses allowing a user to modify analysts' estimates, apparently on an *ad hoc* basis, to account for perceived bias. Column 11 lines 10-52 of Gatto merely describes an aspect of Gatto's software tool that permits a user to view historical stock and estimate data over a selected period of time.

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Accordingly, neither portion of Gatto appears to say anything at all about processing

historical data for Gatto's factors in order to obtain a formula that is a function of such

factors.

In addition, column 21 of Gatto (also cited by the Examiner with respect to this

feature) has been studied in detail and is not seen to overcome the deficiencies noted

above. Rather, this portion of Gatto merely notes that models created by a user may be

saved and backtested.

Third, each of the present claims recites that a direction in which the observed

price of the asset will move is forecast based on a similarity measure that has been

determined by comparing a price estimate for an asset with an actually <u>observed price</u>

for the asset. In contrast, as noted by the Examiner on page 5 of the Final Rejection,

Gatto only appears to discuss comparing an enhanced composite estimate with a

<u>consensus</u> and other <u>estimates</u>, for the purpose of determining whether a stock is

undervalued. Thus, even the Examiner does not assert that Gatto compares a price

estimate for an asset with an actually <u>observed price</u>, as presently recited.

Based on these significant differences between Gatto and the present claims,

independent claims 1, 31 and 32 could not possibly have been anticipated by Gatto.

Accordingly, independent claims 1, 31 and 32, together with their dependent claims 5-

30 and 33-35, are believed to be allowable over the applied art.

<u>Claim 2</u>

Claim 2 depends from independent claim 1 and recites the further feature that

the asset is a stock issued by a company doing business in a particular industry, and a

substantial number of the exogenous variables reflect prices of stocks issued by other

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companies that are also doing business in said particular industry. This additional

feature of the invention is not disclosed by Gatto.

With respect to it, the Examiner asserts:

Gatto's factors selected in developing a model are not just analyst factors, the user permits to identify a group of stocks (a stock set) satisfying the rules, e.g., specifying stocks with a market capitalization in the top of all stocks and a PE ratio less than 20, stock sets are created by different companies (column 10, lines 5-52), thus the sets of stocks are identified by the user to include in the model.

The specific point that is being made in the foregoing quotation is not entirely clear.

However, the portion of Gatto cited in this quotation as supporting its assertion (column

10, lines 5-52) discusses Gatto's Stock Filter. As noted at column 10 lines 24-26, this

stock filter is used solely for selecting the list of stocks to be analyzed. Contrary to the

Examiner's apparent implication, nothing in Gatto indicates that stocks or any

parameters pertaining to them are to be used as variables in Gatto's prediction model.

Rather, as noted above, Gatto's prediction model appears only to use factors pertaining

to analysts and their predictions.

The Examiner also cites column 9 lines 53-63 of Gatto as showing the above-

referenced feature of the invention. No explanation is provided as to how this portion of

Gatto would show the referenced feature. However, a review of it indicates that it also

only concerns selection of a particular stock or other security to be analyzed.

Still further, the Examiner does not even assert that the particular limitation of

claim 2 is disclosed in Gatto. That is, the Examiner does not assert that Gatto discloses

that a substantial number of the exogenous variables reflect prices of stocks issued by

other companies that are also doing business in the particular industry pertaining to the

company whose stock is being analyzed.

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For these additional reasons, claim 2 is believed to be allowable over the applied art.

Claim 3

Claim 3 depends from independent claim 1 and recites the further limitation that the exogenous variables include macroeconomic variables. This additional feature of the invention is not disclosed by Gatto.

The Examiner's assertion that Gatto's factors include macroeconomic variables is believed to be inconsistent with the arguments made in connection with the rejection of independent claim 1. There, the Examiner asserts that the exogenous variables of the present claims read on factors pertaining to estimates and the analysts who made them, which clearly are not macroeconomic variables.

In rejecting claim 3, the Examiner asserts that Gatto's "Estimate Age" factor is equivalent to a macroeconomic factor, and cites column 22, lines 34-52 of Gatto as supporting this assertion. However, that portion of Gatto uses the term "Estimate Age" in the expected manner, i.e., to mean how recent an analyst's estimate is. Clearly, such a factor would not be considered to be a "macroeconomic factor" under any possible definition of the latter term. Moreover, the Examiner has not articulated any basis for asserting that it would be.

For these additional reasons, claim 3 is believed to be allowable over the applied art.

Claim 4

Claim 4 depends from independent claim 1 and recites the further limitation that at least some of the exogenous variables are identified by performing stepwise

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regression over a number of potential exogenous variables and selecting the potential exogenous variables that provide the best fit. This additional feature of the invention is not disclosed by Gatto.

The Office Action cites column 26 lines 30-35 of Gatto as showing this feature of the invention. However, that portion of Gatto has been reviewed in detail and is not seen to say anything at all about performing a stepwise regression. Rather, that portion of Gatto merely notes that a particular model's accuracy, as compared to the consensus, can be tested against historical data using Gatto's "History Chart".

The Examiner references page 7 lines 3-12 of the present Specification in an apparent attempt to equate stepwise regression with evaluating the accuracy of a model. While the subject section of the Specification notes that stepwise regression includes evaluating the accuracy of the model, it certainly does not say that the two are equivalent, as apparently suggested by the Examiner.

For these additional reasons, claim 4 is believed to be allowable over the applied art.

VIII. CONCLUDING REMARKS

As Appellants have shown above, for a number of reasons, nothing in the cited references discloses the invention recited by the claims on appeal. Appellants therefore respectfully submit that the claimed invention is patentably distinct over the applied art.

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In view of the foregoing remarks, Appellants respectfully request that the rejection of claims 1-35 be reversed and a Notice of Allowance issued.

Pursuant to 37 C.F.R. § 1.17(f), please charge the amount of $250.00 to Deposit Account No. 13-3735 to cover the filing fee for this Appeal Brief. If any additional fees are due for this filing , the Commissioner is authorized to charge them to Deposit Account No. 13-3735.

Respectfully submitted,

MITCHELL, SILBERBERG & KNUPP LLP

Dated: October 19, 2005

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CLAIMS APPENDIX

Claims on Appeal

1.   A method for forecasting the direction in which the price of an asset will move, said method comprising:

(a)   identifying a group of exogenous variables that are likely to influence observed prices of an asset;

(b)   utilizing a computer to execute computer-executable process steps that include steps to:

(i)   process historical data for values of said exogenous variables and historical data for the observed prices of the asset over a time period to obtain a formula for calculating price estimates for the asset as a function of the exogenous variables;

(ii)   calculate the formula using an input set of observed values for the exogenous variables at given point in time, so as to obtain a price estimate for the asset at said given point in time; and

(iii) determine a similarity measure by comparing the price estimate for the asset at the given point in time to the observed price for the asset at the given point in time; and

(c)   forecasting a direction in which the observed price of the asset will move based on the similarity measure.

2.   A method according to Claim 1, wherein the asset is a stock issued by a company doing business in a particular industry, and wherein a substantial number of

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the exogenous variables reflect prices of stocks issued by other companies that are also doing business in said particular industry.

3.   A method according to Claim 1, wherein said exogenous variables include macroeconomic variables.

4.   A method according to Claim 1, wherein at least some of said exogenous variables are identified in step (a) by performing stepwise regression over a number of potential exogenous variables and selecting the potential exogenous variables that provide a best fit.

5.   A method according to Claim 1, wherein at least some of said exogenous variables are identified in step (a) by modeling over a number of potential exogenous variables and selecting a set of the potential exogenous variables that tend to maximize predictive power of said modeling.

6.   A method according to Claim 1, wherein at least some of said exogenous variables are identified in step (a) by performing a statistical clustering technique.

7.   A method according to Claim 1, wherein said given point in time is after said time period.

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8.   A method according to Claim 7, wherein said given point in time is approximately 30 days after said time period ends.

9.   A method according to Claim 1, wherein the time period is determined using a stepwise approach.

10.   A method according to Claim 1, wherein the asset comprises a share of stock issued by a corporation, and wherein the time period is determined based on changes affecting the corporation.

11.   A method according to Claim 7, wherein a duration of the time period is selected so as to maximize a predictive power of the formula over the time period.

12.   A method according to Claim 1, wherein said processing in step (i) comprises performing a statistical regression technique.

13.   A method according to Claim 1, wherein said processing in step (i) comprises performing a neural network technique.

14.   A method according to Claim 1, wherein step (iii) comprises a step of:

(iii-1)   determining a difference between the price estimate for the asset at the given point in time and the observed price for the asset at the given point in time.

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15.   A method according to Claim 14, wherein step (iii) further comprises a step of:

(iii-2)   calculating a ratio of the difference determined in step (iii-1) to the price estimate for the asset at said given point in time.

16.   A method according to Claim 1, wherein step (iii) comprises determining a ratio of the price estimate for the asset at the given point in time to the observed price for the asset at the given point in time.

17.   A method according to Claim 1, wherein the computer-executable process steps further include a step to:

(iv)   determine a measure of accuracy variability, over the time period, of the price estimates for the asset calculated using the formula.

18.   A method according to Claim 17, wherein the computer-executable process steps further include a step to:

(v)   determine a measure of a statistical significance of the similarity measure by comparing the similarity measure to said measure of accuracy variability.

19.   A method according to Claim 18, wherein step (v) comprises calculating a ratio of the similarity measure to said measure of accuracy variability.

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20.   A method according to Claim 17, wherein said measure of accuracy

variability comprises a standard error of the formula, the standard error of the formula

being a square root of an estimate of a variance of errors of the formula.

21.   A method according to Claim 1, wherein step (i) comprises steps to:

(i-1)   obtain a first formula for calculating price estimates for the asset as a

function of macroeconomic variables;

(i-2)   obtain a second formula for calculating price estimates for the asset as a

function of prices of other assets that are related to the asset; and

(i-3)   combine estimates from said first formula and said second formula to

obtain said formula.

22.   A method according to Claim 21, further comprising a step of using price

estimates from the first formula to remove macroeconomic effects from price estimates

calculated using the second formula.

23.   A method according to Claim 1, wherein the computer-executable process

steps further include a step to:

(iv)   repeat steps (ii) and (iii) for plural points in time after the time period ends

in order to obtain plural similarity measures, and

wherein the forecasting of step (c) is based on said plural similarity measures.

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24.   A method according to Claim 23, wherein the computer-executable process steps further include a step to:

(v)   calculate a central tendency of the plural similarity measures, and

wherein the forecasting of step (c) is based on said central tendency.

25.   A method according to Claim 23, wherein the computer-executable process steps further include a step to:

(v)   calculate a weighted average of the plural similarity measures, and

wherein the forecasting of step (c) is based on said weighted average.

26.   A method according to Claim 1, further wherein the computer-executable process steps further include a step to:

(iv)   repeat steps (i)-(iii) using different time periods, and

wherein the forecasting in step (c) is based on the similarity measures determined by using said different time periods.

27.   A method according to Claim 26, wherein said different time periods have approximately a same duration.

28.   A method according to Claim 27, wherein said different time periods include a time period ending approximately 30 days prior to said given point in time and a time period ending approximately 90 days prior to said given point in time.

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29.   A method according to Claim 26, wherein the computer-executable process steps further include a step to:

(v)   calculating a ratio of the similarity measure determined by using one of the time periods to the similarity measure determined by using an other of the time periods.

30.   A method according to Claim 1, wherein said exogenous variables include prices of other assets that are similar to the asset.

31.   An apparatus for forecasting the direction in which the price of an asset will move, said apparatus comprising:

(a)   means for identifying a group of exogenous variables that are likely to influence observed prices of an asset;

(b)   means for processing historical data for values of said exogenous variables and historical data for the observed prices of the asset over a time period to obtain a formula for calculating price estimates for the asset as a function of the exogenous variables;

(c)   means for calculating the formula using an input set of observed values for the exogenous variables at given point in time, so as to obtain a price estimate for the asset at said given point in time;

(d)   means for determining a similarity measure by comparing the price estimate for the asset at the given point in time to the observed price for the asset at the given point in time; and

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(e)   means for forecasting a direction in which the observed price of the asset will move based on the similarity measure.

32.   A computer-readable medium storing computer-executable process steps for forecasting the direction in which the price of an asset will move, said process steps comprising steps to:

(a)   identify a group of exogenous variables that are likely to influence observed prices of an asset;

(b)   process historical data for values of said exogenous variables and historical data for the observed prices of the asset over a time period to obtain a formula for calculating price estimates for the asset as a function of the exogenous variables;

(c)   calculate the formula using an input set of observed values for the exogenous variables at given point in time, so as to obtain a price estimate for the asset at said given point in time;

(d)   determine a similarity measure by comparing the price estimate for the asset at the given point in time to the observed price for the asset at the given point in time; and

(e)   forecast a direction in which the observed price of the asset will move based on the similarity measure.

33.   A method according to Claim 1, wherein step (c) is performed by evaluating the similarity measure as a measurement of changes due to factors that are not accounted for by the exogenous variables.

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34.   An apparatus according to Claim 31, wherein said means (c) evaluates the similarity measure as a measurement of changes due to factors that are not accounted for by the exogenous variables.

35.   A computer-readable medium according to Claim 32, wherein step (c) is performed by evaluating the similarity measure as a measurement of changes due to factors that are not accounted for by the exogenous variables.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None

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